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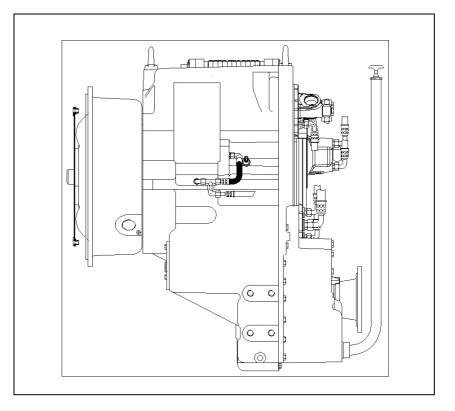
**Repair Instruction** 

Off-Road Transmissions and Axle Systems Division



# **REPAIR INSTRUCTIONS 1-2**

# <u>ZF – ERGOPOWER</u> <u>3/6 WG 261/311</u>



### **REFERENCE**

For information concerning description, installation instructions, operation and maintenance, see respective Operating Instructions.

# **ZF Passau GmbH**

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### Abt.: ASTDM / Section : ASTDM

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## PREFACE

This documentation has been developed for skilled staff trained by the ZF Passau for the repair and maintenance works on ZF-units.

#### Documented is a ZF-serial product representing the design state at the time of the edition.

However, due to further technical developments of the product, the repair of the unit at your disposal could require different steps as well as different adjustments and testing specifications.

Therefore, we recommend to commit your ZF-product to foremen and technicians whose practical and theoretical training is permanently updated in our after-sales service school.

The service stations established world-wide by the Zahnradfabrik Friedrichshafen are offering to you:

- 1. Continuously trained staff
- 2. Prescribed facilities, e.g. special tools
- 3. Genuine ZF-spare parts meeting the latest state of development

Here, all operations are carried out for you with utmost care and reliability.

# Repairs carried out by ZF-service stations are covered by a respective warranty within the scope of the applicable contractual conditions.

Damage caused by improper or unskilled work carried out by others than ZF-staff as well as resulting consequential costs, if any, are excluded from this contractual liability. This also applies, if the use of genuine ZF-spare parts is renounced.

ZF Passau GmbH

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**Repair Instruction** 



## **GENERAL**

The Service Manual covers all works required for dismantling and the pertaining installation.

When repairing the transmission, ensure utmost cleanliness and that the works are carried out in an expertlike manner.

The transmission should only be disassembled for renewing damaged parts. Covers and housing parts installed with seals must be loosened by slight blows with a plastic mallet after screws and nuts have been removed. For removing parts being in tight contact with the shaft such as antifriction bearings, bearing races, and similar, use suitable pulling devices.

Dismantling and mounting works must be carried out at a clean working place. Use the special tools developed for this purpose. Prior to the re-installation of the parts, clean the contact surfaces of housings and covers from the residues of old seals. Remove burrs, if any, or similar irregularities with an oil stone. Clean housings and locking covers with a suitable detergent, in particular corners and angles. Damaged parts or parts heavily worn down must be renewed. Here, the expert must assess, whether parts such as antifriction bearings, thrust washers etc. subjected to normal wear during operation, can be installed again. Parts such as sealing rings, lock plates, split pins etc. must generally be renewed. Radial sealing rings with worn down or torn sealing lip must also be renewed. Particularly ensure that no chips or other foreign bodies remain in the housing. Lube oil bores and grooves must be checked for unhindered passage. All bearings must be treated with operating oil prior to installing them:

**REFE-** For heating up parts such as bearings, housings etc., only a heating furnace or an electric drier is permitted to be used!

### CAUTION

When assembling the transmission, absolutely observe the indicated torque limits and adjustment data. Screws and nuts must be tightened according to the enclosed standard table, unless otherwise specified. In view of the risk of functional failures in the control unit, the use of liquid sealing agents is not permitted. By no means, Molykote is permitted to be used.

Lined plates must not be washed. They must be cleaned with a leather cloth.



DANGER

When using detergents, observe the instructions given by the manufacturer regarding handling of the respective detergent.